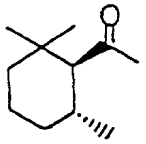
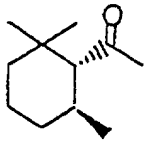
What is claimed is:

1. A (1S,6R)-2,2,6-trimethylcyclohexyl methyl ketone represented by the formula (1a):



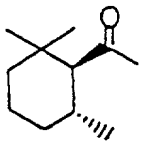
(1S,6R)- ・・・・(1a)

2. A (1R,6S)-2,2,6-trimethylcyclohexyl methyl ketone represented by the formula (1b):



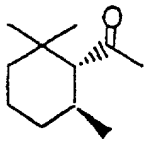
(1R,6S)- ・・・・(1b)

3. A 2,2,6-trimethylcyclohexyl methyl ketone comprising at least one of a (1S,6R)-2,2,6-trimethylcyclohexyl methyl ketone represented by the formula (1a):



(1S,6R)- ・・・・(1a)

and a (1R,6S)-2,2,6-trimethylcyclohexyl methyl ketone represented by the formula (1b):



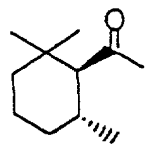
(1R,6S)- ・・・・(1b)

4. The 2,2,6-trimethylcyclohexyl methyl ketone according to claim 3, wherein the optical purity of the 2,2,6-trimethylcyclohexyl methyl ketone is at least 75% e.e.

5. The 2,2,6-trimethylcyclohexyl methyl ketone according to claim 4, wherein the optical purity of the 2,2,6-trimethylcyclohexyl methyl ketone is from 75% e.e. to 98% e.e.

6. A perfume composition comprising:

a (1S,6R)-2,2,6-trimethylcyclohexyl methyl ketone represented by the formula (1a):

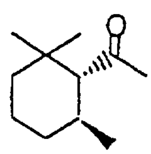


(1S, 6R)- · · · · (1 a)

and an acceptable carrier.

7. A perfume composition comprising:

a (1R,6S)-2,2,6-trimethylcyclohexyl methyl ketone represented by the formula (1b):



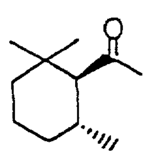
(1R, 6S)- · · · · (1 b)

and an acceptable carrier.

8. A perfume composition comprising:

a 2,2,6-trimethylcyclohexyl methyl ketone;

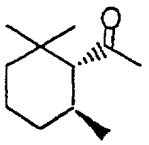
said 2,2,6-trimethylcyclohexyl methyl ketone including at least one of a (1S,6R)-2,2,6-trimethylcyclohexyl methyl ketone represented by the formula (1a):



(1S, 6R)- · · · · (1 a)

and a (1R,6S)-2,2,6-trimethylcyclohexyl methyl ketone

represented by the formula (1b):



(1R, 6S)- ・・・・ (1 b)

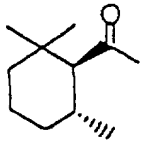
;

and an acceptable carrier.

9. The perfume composition according to claim 8, wherein the optical purity of the 2,2,6-trimethylcyclohexyl methyl ketone is at least 75% e.e.

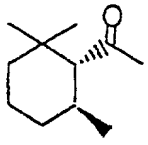
10. The perfume composition according to claim 9, wherein the optical purity of 2,2,6-trimethylcyclohexyl methyl ketone is from 75% e.e. to 98% e.e.

11. A process for producing trans-2,2,6-trimethylcyclohexyl methyl ketone, comprising at least one of a compound represented by the formula (1a):



(1S, 6R)- ・・・・ (1 a)

and a compound represented by the formula (1b):

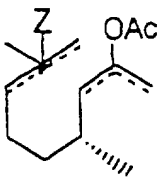


(1R, 6S)- ・・・・ (1 b)

,

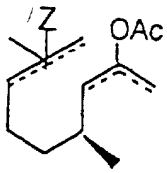
the process comprising:

cyclizing a novel optically active enol acetate represented by at least one of formula (2a):



(4R)-(2) · · · (2a)

and formula (2b):



(4S)-(2) · · · (2b)

wherein Ac represents an acetyl group; double lines composed of solid lines and broken lines represent a double bond or single bond; when said double lines represent a single bond, Z represents a hydroxyl group or a methoxy group; and, when said double lines represent a double bond, Z is absent,
in the presence of an acid catalyst.

12. The process for producing trans-2,2,6-trimethylcyclohexyl methyl ketone according to claim 11, where said acid catalyst is a protonic acid.

13. The process for producing trans-2,2,6-trimethylcyclohexyl methyl ketone according to claim 12, wherein said protonic acid is selected from the group consisting of hydrochloric acid, sulfuric acid, phosphoric acid, polyphosphoric acid, para-toluenesulfonic acid, naphthalene sulfonic acid, Amberlyst-15, sulfuric acid-carrying activated clay and Nafion H.

14. The process for producing trans-2,2,6-trimethylcyclohexyl methyl ketone according to claim 11, wherein said acid catalyst is present from about 0.1 to 5 equivalents relative to 1 equivalent of the enol acetate.